

# Key Facts About the Computing, **Environment and Life Sciences Directorate**

Associate Laboratory Director: Rick Stevens

Deputy ALD: Robin Graham Deputy ALD: Michael E. Papka

Regular Staff: 333 Postdocs: 42 Students: 75

Joint Appointments / Visitors: 261

**URL:** www.cels.anl.gov

### **About**

The Computing, Environment and Life Sciences Directorate integrates Argonne research in the computing sciences (applied mathematics, computer science, and computational science); the environmental sciences (earth science, energy science, and global climate research); and the life sciences (subsurface science, terrestrial ecology, molecular biology, microbiology, protein chemistry, bioinformatics, computational biology).

### **Divisions**

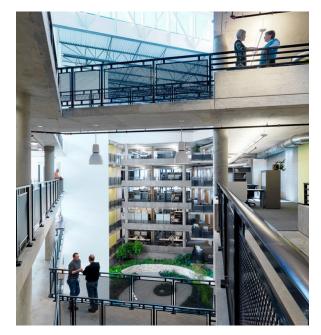
**BIO:** The Biosciences Division conducts multidisciplinary basic research to understand biological mechanisms relevant to energy production, climate change, bioremediation, and the protection of human health. An international leader in structural biology, the Biosciences Division focuses on proteomics, protein production and characterization, as well as terrestrial carbon cycle and subsurface science.

**EVS:** The Environmental Science Division is a national leader in large-scale environmental impacts analysis, ecological and human health risk analysis, geographical information systems, and atmospheric science and climate data assimilation. EVS manages the U.S. DOE's Atmospheric Radiation Measurement (ARM) Southern Great Plains site and its ARM Mobile Facility-2.

MCS: The Mathematics and Computer Science Division is a leader in the computing sciences, performing fundamental research and developing software technologies for solving some of our nation's most critical scientific problems. The division's world-class research includes exciting initiatives in four key areas: extreme computing, data-intensive science, applied mathematics, and science and engineering applications.

## **User Facilities**

**ALCF:** The Argonne Leadership Computing Facility is a U.S. DOE user facility to advance fundamental discovery and understanding in a broad range of disciplines in science and engineering through the use of



advanced computational resources. It provides research teams with user support and large allocations on leading-edge supercomputing resources to conduct large-scale simulations and to develop application tools and software. The ALCF conducts research and development in support of computational science and high performance computing.

#### **Joint Institutes**

CI: The University of Chicago/Argonne National Laboratory Computation Institute develops innovative computational and informatics approaches in a multidisciplinary setting to enable future breakthroughs in research. CI research is focused on applications of grid, high performance computing, and cloud computing across the sciences, arts, and medicine.

**IGSB:** The Institute for Genomics & Systems Biology accelerates the translation of basic discoveries in genome science into practical benefits for society. IGSB is an international leader in informatics for metagenomics analysis, and maintains a high-throughput sequencing cores and screening cores.



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